

.5	<b>SHAPING OR TREATING RADIOACTIVE MATERIAL (E.G., FISSIONABLE OR FERTILE, ETC.)</b>	3.1	<b>EXPLOSIVE OR PROPELLANT ARTICLE SHAPING OR TREATING</b>
1.1	<b>OPTICAL ARTICLE SHAPING OR TREATING</b>	3.2	.Rolling to form sheet or rod
1.21	..Nonresinous material only (e.g., ceramic, etc.)	3.3	.Extrusion to form sheet or rod
1.22	..Scandium (Sc), yttrium (Y), or rare earth containing (i.e., atomic numbers 21, 39, or 57-72)	3.4	.Forming or treating particulate material
1.23	..Halogen containing	3.5	..By liquid comminuting
1.24	.Optical fiber, waveguide, or preform	3.6	...Immersed in liquid
1.25	..Forming connector or coupler (e.g., fiber link, etc.)	4	<b>ENCAPSULATING NORMALLY LIQUID MATERIAL</b>
1.26	...Having lens integral with fiber	4.1	.Liquid encapsulation utilizing an emulsion or dispersion to form a solid-walled microcapsule (includes liposome)
1.27	..Utilizing plasma, electric, electromagnetic, particle, or wave energy	4.3	..With treatment subsequent to solid wall formation (e.g., coating, hardening, etc.)
1.28	..Forming fiber bundle or cable (e.g., covering, etc.)	4.32	...Microcapsule wall containing two or more layers
1.29	..Extruding (i.e., die)	4.33	...Microcapsule wall derived from synthetic polymer
1.31	.Light polarizing article or holographic article	4.4	..Solid-walled microcapsule formed by cooling molten materials
1.32	..Lens	4.6	..Solid-walled microcapsule formed by physically removing a constituent (e.g., evaporation, extraction, etc.)
1.33	..Optical recording medium	4.7	..Solid-walled microcapsule formed by in situ polymerization
1.34	..Film or sheet	5	<b>FORMATION OF SOLID PARTICULATE MATERIAL DIRECTLY FROM MOLTEN OR LIQUID MASS (E.G., LIQUID COMMUNUTING)</b>
1.35	...Halogen containing	6	.With subsequent uniting of the particles
1.36	.Utilizing plasma, electric, electromagnetic, particulate, or wave energy	7	.Coated particles
1.37	..Laser utilized	8	.Utilizing centrifugal force or rotating forming zone
1.38	..Ultraviolet light utilized	9	.By vibration or agitation
1.6	.Continuous or indefinite length	10	.Utilizing electrical energy
1.7	.Composite or multiple layer	11	.By impinging plural liquid masses
1.8	..Including bifocal	12	.By impinging or atomizing with gaseous jet or blast
1.9	..Reflective	13	.By extrusion spraying or gravity fall through orifice
2.1	.Rotational molding	14	..Into moving fluid
2.2	.Changing mold size or shape during molding or with shrinkage compensation	15	<b>SPHEROIDIZING OR ROUNDING OF SOLID PARTICLES</b>
2.3	..With mold adherence or release	16	<b>DENTAL SHAPING TYPE</b>
2.4	..Preform	17	.Denture forming
2.5	.Including step of mold making		
2.6	.Nonmechanical aftertreatment (e.g., hydration of contact lens, extraction, heat treatment, etc.)		
2.7	.Reshaping or treatment of an optical preform		

18	..Forming denture base against preformed teeth	416	...Using liquid to gas blowing agent
19	.Tooth forming	417	....Microwave (e.g., 2.45 gigahertz, etc.)
20	..Shaded layer	418	....Radio frequency (e.g., 13.56 megahertz, etc.)
21	<b>SHAPING OR TREATING LUMINESCENT MATERIAL</b>	419	...Using chemical blowing agent
400	<b>LASER ABLATIVE SHAPING OR PIERCING (I.E., NONETCHING, DEVOID OF CHEMICAL AGENT OTHER THAN AIR)</b>	420	....Microwave (e.g., 2.45 gigahertz, etc.)
401	<b>STEREOLITHOGRAPHIC SHAPING FROM LIQUID PRECURSOR</b>	421	....Radio frequency (e.g., 13.56 megahertz, etc.)
402	<b>DIRECT APPLICATION OF ELECTRICAL OR WAVE ENERGY TO HEAT THE MOLD (E.G., ELECTROMAGNETIC WAVE, PARTICULATE, MAGNETIC, SONIC, ELECTROSTATIC ENERGY, ETC.)</b>	422	...Radio frequency (e.g., 13.56 megahertz, etc.)
403	.Induction heating	423	..Plasma (e.g., corona, glow discharge, etc.)
404	.Electrical heating (e.g., resistance heat, etc.)	424	..Utilizing electron arc or electron beam
405	<b>DIRECT APPLICATION OF ELECTRICAL OR WAVE ENERGY TO WORK (E.G., ELECTROMAGNETIC WAVE, PARTICULATE, MAGNETIC, INDUCTION HEAT, SONIC, ELECTROSTATIC ENERGY, ETC.)</b>	425	..Polymerizing, cross-linking, or curing
406	.Measuring, testing, or inspecting	426	.Producing or treating inorganic hydro-settable material (e.g., cement, plaster, etc.)
407	..Using sonic, supersonic, or ultrasonic energy	427	.Producing or treating magnetic product precursor thereof
408	..Sensing by utilizing light or passage of electric-field current through molding material	428	..Including vitrifying or sintering (e.g., fusing, firing, burning, etc.)
409	...Laser	429	..Uniting magnetic particles utilizing organic binder (e.g., resinous binders, etc.)
410	...Infrared radiation	430	.Producing or treating inorganic material, not as pigments, conductive enhancers, or fillers (e.g., ceramic, refractory material, etc.)
411	...Measuring weight or volume (e.g., level-responsive, etc.)	431	..Induction heating
412	...Controlling rate of movement of molding material or its support in a continuous process	432	..Microwave (e.g., 2.45 gigahertz, etc.)
497	.Using laser sintering of particulate material to build three-dimensional product (e.g., SLS, selective laser sintering, etc.)	433	..Including extruding (e.g., spinning, etc.)
413	.Producing or treating porous product	434	..Including vitrifying or sintering (e.g., fusing, firing, burning, etc.)
414	..Inorganic material containing	435	.Molecular aligning or molecular orientating (e.g., poling, etc.)
415	..Including in situ (e.g., foaming)	436	..Producing permanently polarized dielectric (e.g., electret, etc.)
		437	.Conveying or aligning particulate material
		438	..Utilizing electrostatic charge
		439	...Simultaneously with molding
		440	....Forming composite structure

441	....Producing filament	470	..Utilizing electron arc or electron beam
442	..Using sonic, supersonic, or ultrasonic energy	471	...Layered or structurally layered composite
443	..Simultaneously with molding	472	..Induction heating
444	...Producing articles of indefinite length	473	..High energy or particulate radiation (e.g., X-ray, gamma ray, neutron, etc.)
445	...Fusion bonding of preformed bodies and shaping at the joint	474	..Microwave (e.g., 2.45 gigahertz, etc.)
446	.Limited to treatment of surface or coated surface	475	..Radio frequency (e.g., 13.56 megahertz, etc.)
447	..Treatment of coated surface	476	..Infrared radiation
448	..Of indefinite length article	477	..Polymerizing, cross-linking, or curing
449	.Using direct contact of electrode or electrical wire with precursor or workpiece	478	.Injection molding
450	..Organic material contains specified conductive enhancing component (e.g., filler, etc.)	479	.Reshaping, drawing or stretching
451	..Shaping surface constitutes electrode	480	..Composite work-piece
452	...Including extrusion molding	481	..Infrared radiation
453	...Including injection molding	482	.Laser
454	.Direct application of fluid pressure (e.g., blow molding, etc.)	483	.Plasma (e.g., corona, glow discharge, etc.)
455	..Plasma (e.g., corona, glow discharge, etc.)	484	.Utilizing electrostatic charge, field, force (e.g., pinning, etc.)
456	..Utilizing electron arc or electron beam	485	.Utilizing electron arc or electron beam
457	..Induction heating	486	.Induction heating
458	..Infrared radiation	487	..Composite work-piece
459	..Polymerizing, cross-linking, or curing	488	.High energy or particulate radiation (e.g., X-ray, gamma ray, neutron, etc.)
460	.Forming articles by uniting randomly associated particles	489	.Microwave (e.g., 2.45 gigahertz, etc.)
461	..Utilizing electron arc or electron beam	490	..Composite work-piece
462	..Infrared radiation	491	.Radio frequency (e.g., 13.56 megahertz, etc.)
463	..Polymerizing, cross-linking, or curing	492	.Infrared radiation
464	.Extrusion molding	493	..Composite work-piece
465	..Utilizing electrostatic charge, field, or force (e.g., pinning, etc.)	494	.Polymerizing, cross-linking, or curing (e.g., utilizing ultraviolet radiation, etc.)
466	...On film, sheet or web	495	..Indefinite length articles
467	....Plural electrodes spaced between the extruding means and the shaping surface	496	..While contacting a shaping surface (e.g., in mold curing, etc.)
468	....Including differential fluid pressure application (e.g., vacuum, etc.)	28	<b>WITH STEP OF COOLING TO A TEMPERATURE OF ZERO DEGREES C. OR BELOW</b>
469	..Plasma (e.g., corona, glow discharge, etc.)	29.1	<b>CARBONIZING TO FORM ARTICLE</b>
		29.2	.Filaments
		29.3	.Agglomeration or accretion
		29.4	.From cellulosic material

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| 29.5  | .With carbonizing, then adding carbonizable material and recarbonizing  | 36.22 | .By polymerizing, cross-linking, or curing (e.g., hardening, etc.)                               |
| 29.6  | .In specific atmosphere (except vacuum or air)  | 37.1  | <b>RECYCLING OF RECLAIMED OR PURIFIED PROCESS MATERIAL (NOT RECYCLED CONSUMER USED ARTICLES)</b> |
| 29.7  | .Controlling varying temperature or plural heating steps  | 37.11 | .Vaporizing to recycle liquid  |
| 30    | <b>FURNACE LINING FORMATION OR REPAIR</b>   | 37.12 | ..The liquid is, or is part of, an extrudant bath  |
| 31    | <b>FORMING STRUCTURAL INSTALLATIONS IN SITU</b>   | 37.13 | ..The liquid is a solvent for organic process material   |
| 32    | .Arched, domed, or vertical-cylindrical structure   | 37.14 | .Of gaseous process material (e.g., cooling gas, blowing gas, etc.)                              |
| 33    | .Repositioning or moving mold to form sequential portions of a structure  | 37.15 | ..Of gas utilized in forming porous material   |
| 34    | .Sequentially molding in situ different portions or layers on a unitary structure   | 37.16 | ..Of blow molding gas  |
| 35    | .Uniting preform member with molding material   | 37.17 | ..Of gas utilized for heating or cooling   |
| 36.1  | <b>REPAIRING OR RESTORING CONSUMER USED ARTICLES FOR REUSE</b>  | 37.18 | .Of liquid process material (e.g., suspensions, etc.)  |
| 36.11 | .Articles containing nontextile porous material (e.g., foam, sponge, etc.)  | 37.19 | ..From hydro-settable suspension   |
| 36.12 | .Balls or rollers (e.g., printing rollers, golf balls, etc.)  | 37.2  | ..The liquid is from an extrudant-receiving bath (e.g., liquid suspensions, etc.)                |
| 36.13 | .Sound records (e.g., by removing grooves, etc.)  | 37.21 | ...Containing ethylene or propylene carbonate in the bath  |
| 36.14 | .Toroidal shapes (e.g., resilient tires, etc.)  | 37.22 | ...Containing acetic, nitric, or sulfuric acid in the bath                                       |
| 36.15 | .Hollow- or container-type articles (e.g., vase, pipes, cups, tubes, etc.)  | 37.23 | ...Containing zinc(Zn), lead(Pb), or copper(Cu) ions in the bath                                 |
| 36.16 | ..Pipes or tubes  | 37.24 | ...With filtration   |
| 36.17 | ...By application of internal fluid pressure differential to permanently shape, distort, or sustain material to repair or restore pipes or tubes (e.g., flexible bladder, expandable tubular pig, etc.) | 37.25 | ..Into blow molding process  |
| 36.18 | .Inorganic material containing articles (e.g., plaster board, ceramic, fiberglass, etc.)  | 37.26 | ..Into extrusion molding process   |
| 36.19 | ..Clad wire or cable (e.g., by restoring sheathing, etc.)   | 37.27 | ..Into injection molding process   |
| 36.2  | ..Hydro-set material (e.g., cement, concrete, plaster board, etc.)  | 37.28 | .Of excess fiber or filament   |
| 36.21 | ..By shaping nonglass material to repair damaged glass  | 37.29 | .Of excess solid particulate (e.g., dust, powder, etc.)  |
|       |   | 37.3  | .Of process trim or excess blanked material (e.g., sprue, runner, flash, etc.)                   |
|       |   | 37.31 | ..Into blow molding process  |
|       |   | 37.32 | ..Into extrusion molding process   |
|       |   | 37.33 | ..Into injection molding process   |
|       |   | 39    | <b>WITH STEP OF CLEANING, POLISHING, OR PRECONDITIONING APPARATUS FOR USE</b>                    |
|       |   | 40.1  | <b>WITH MEASURING, TESTING, OR INSPECTING</b>  |
|       |   | 40.3  | .Controlling fluid pressure in direct contact with molding material                              |

40.4	.Measuring a weight or volume (e.g., level-responsive, etc.)	46.6	...Against inner surface of a hollow preform or solidified layer
40.5	.Positioning of a mold part to form a cavity or controlling pressure of a mold part on molding material	46.7	...Utilizing metal part or reinforcement
40.6	.Controlling heat transfer with molding material	46.8	...Introducing preform into mold by thermoforming operation (e.g., vacuum forming, etc.)
40.7	.Controlling rate of movement of molding material or its support in a continuous process	46.9	...On a preform or solidified layer which is spherical, toroidal, or annular
41	<b>PORE FORMING IN SITU (E.G., FOAMING, ETC.)</b>	48	.Including surface treatment of porous body
42	.Of inorganic materials	49	.By treating occluded solids
43	..Including vitrification or firing	50	.By mechanically introducing gas into material
44	...Burning out components to form pores	51	.By gas forming or expanding
45.1	.Composite article making	52	..Utilizing expansion retarder
45.2	..Utilizing inflatable or expandable mold part or mold, per se	53	..Liquid to gas phase change
45.3	..Incorporating particulate material, fibers, or batts in a random distribution within a foamed body	54	..Chemical blowing
45.4	..Forming one layer by uniting and expanding expandable thermoplastic beads or particles	55	...Plural or incremental expansion steps
45.5	..Autogenously formed surface layer or base supplies surface (e.g., skin forming, etc.)	600	<b>HEAT POLISHING (E.G., GLAZING, ETC.) OF INORGANIC ARTICLE SURFACE OUTSIDE OF MOLD</b>
45.6	...Foam surface layer produced by surface treatment of preformed base material	601	.Of clay containing block, tile, or brick
45.7	..Utilizing rotational molding operation	602	.With coating outside of mold
45.8	..Forming indefinite length continuous work	603	<b>OUTSIDE OF MOLD SINTERING OR VITRIFYING OF SHAPED INORGANIC ARTICLE OR PREFORM</b>
45.9	...Including extrusion	604	.Applying hot isostatic fluid pressure to preform using surrounding liquid (e.g., molten glass, melted tin, etc.) or fluid pressure-transmitting deformable sheath (e.g., metal foil, etc.)
46.1	....With subsequent application of shaping force to form final desired shape	605	.Particular or specific manner of positioning, arranging, or conveying of plural articles or plural preforms (e.g., stacking, utilizing spacer, etc.) during sintering, vitrifying, or drying
46.2	...Between at least two moving surfaces	606	..In a tunnel or channel kiln
46.3	....With roller applied pressure	607	..Utilizing removable setter or spacing means
46.4	..Shaping material and uniting to a preform or solidified layer	608	...Utilizing spacing means between stacked articles while heating outside of mold
46.5	...Uniting spaced preforms or solidified layers by introducing foamable material therebetween	609	..Of clay containing block, tile, or brick

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| 610 | .Simultaneously burning, vaporizing, or melting of embedded element or core to form nonrandom void             | 637 | ...Removal of liquid component or carrier through porous or absorbent mold surface  |
| 611 | .Of magnetic (e.g., ferrite, etc.) article or component  | 638 | .Shaping by extrusion (e.g., spinning, etc.)  |
| 612 | ..Using organic binder or organometallic   | 639 | ..Of indefinite length product (e.g., sheet, tape, rod, fiber, etc.)  |
| 613 | ..Specifying atmosphere other than air (e.g., oxidizing, inert, 10% oxygen, etc.)                              | 640 | .Producing fiber containing article or fiber  |
| 614 | .Of electrical article or electrical component (i.e., not insulator, per se)                                   | 641 | ..Producing uniformly dispersed particulate fiber containing article  |
| 615 | ..Capacitor (e.g., condensor, etc.)  | 642 | .Shaping or treating of multilayered, impregnated, or composite-structured article  |
| 616 | ..Resistor   | 643 | ..Shaping followed by article coating or impregnating   |
| 617 | ...Varistor  | 644 | ..Clay containing block, tile, or brick   |
| 618 | ..Ceramic containing electrode, or coil, electrode, or coil having ceramic portion, or shaped electrolyte body | 645 | .Introducing material under pressure into mold (e.g., injection molding, etc.)  |
| 619 | ..Having patterned metal electrical conductor other than electrode (e.g., printed circuit, etc.)               | 646 | .Utilizing chemically reactive atmosphere other than air, per se, during sintering to convert precursor to ceramic material |
| 620 | ..Having plural heating steps  | 647 | ..Nitrogen  |
| 621 | .Utilizing sol or gel  | 648 | ..Using oxygen enriched gas or oxidizing atmosphere (i.e., other than air, per se)  |
| 622 | ..Unconfined drawing or extending of plastic mass to form article  | 649 | .Utilizing exothermic reaction  |
| 623 | ..Shaping by extrusion (e.g., spinning, etc.)  | 650 | .Casting of film (e.g., sheet, tape, etc.)  |
| 624 | .Using organometallic or organosilicon intermediate  | 651 | .Removal of liquid component or carrier through porous or absorbent mold surface (e.g., slip casting, etc.)                 |
| 625 | ..Forming carbide or carbonitride containing product   | 652 | .Sintering or vitrifying in a tunnel or channel kiln  |
| 626 | ..Forming nitride or oxynitride containing product   | 653 | .Including plural heating steps   |
| 627 | ..Forming fiber  | 654 | ..Including diverse heating of article prior to outside-mold sintering or vitrifying  |
| 628 | .Producing microporous article (e.g., filter, etc.)  | 655 | ...With article cutting, punching, or grinding  |
| 629 | .Producing article having plural hollow channels   | 656 | ...Including nonsintering burn-off, volatilization, or melting of binder  |
| 630 | ..Producing honeycomb shape  | 657 | ...Of synthetic resin binder  |
| 631 | ...From cordierite (i.e., $2\text{MgO} \cdot 2\text{Al}_2\text{O}_3 \cdot 5\text{SiO}_2$ , iolite)             | 658 | ...Including reaction of precursor to form new inorganic compound or composition  |
| 632 | .Producing hollow article (e.g., tube, etc.)   |     |   |
| 633 | ..Producing bowl-like article  |     |   |
| 634 | ..Shaping by extrusion (e.g., spinning, etc.)  |     |   |
| 635 | ..Utilizing core mandrel   |     |   |
| 636 | ..Casting suspension of particles against forming surface  |     |   |

659	....Forming nitride or oxynitride containing product	678	.With article cutting, punching or grinding
660	...With drying of shaped article or preform using nonsintering heat	679	.Of clay containing material
661	...With drying, calcining, or sintering of non-shaped particulate	680	..Clay containing block, tile, or brick
662	..Including diverse heating of article subsequent to sintering	681	.Producing metal oxide containing product
663	...Subsequent hot pressing (i.e., press molding or by gas pressure)	682	.Producing silicon carbide containing product
664	....Specified temperature or pressure for hot pressing	683	.Producing silicon nitride containing product
665	...Silicon nitride containing product	68	<b>INCLUDING STEP OF GENERATING HEAT BY FRICTION</b>
666	..Plural sintering steps having specified temperature (e.g., presintering, etc.)	69	<b>TREATMENT OF MATERIAL BY VIBRATING, JARRING, OR AGITATING DURING SHAPING</b>
667	.Including specified molding pressure or controlling of molding pressure (e.g., cold isostatic pressing, hydrostatic pressure, etc.)	70	.Continuously formed or indefinite length article
668	..Producing metal nitride or silicon nitride containing product	71	.By reciprocating or vibrating mold
669	.Utilizing binder to add green strength to preform	72	..Diverse, sequential, or modulated
670	..Of synthetic resin binder	73	<b>RANDOM VARIEGATED COLORING DURING MOLDING</b>
671	.Particular or specific manner of positioning, arranging, or conveying of single article or preform (e.g., utilizing spacer, etc.) during sintering, vitrifying, or drying	74	.Of surface portion only
672	..To control or compensate shrinkage	75	.By extrusion
673	..Utilizing particulate or sintered particulate packing, or support	76	.By calendering
674	.Involving specified composition of heating atmosphere, other than air	77	.By compression in a closed mold cavity
675	..Containing water vapor	78	<b>WITH INCORPORATING DYE SUSCEPTIBLE MATERIAL OR DYEING WORKPIECE</b>
676	..Containing nitrogen gas, noble gas, or inert gas, per se	79	<b>WITH APPLICATION OR BARRIER FOR VOLATILE COMPONENT MATERIAL TO MOLDED ARTICLE SURFACE</b>
677	.Controlling or directing flow of heated gas or exhaust within heating chamber (e.g., sintering furnace, drying chamber, etc.) or against article	80	<b>FLAME CONTACT OR RESHAPING BY HEAT DECOMPOSITION OF WORK</b>
		81	<b>GAS OR VAPOR DEPOSITION OF ARTICLE FORMING MATERIAL ONTO MOLD SURFACE</b>
		82	<b>REACTIVE GAS OR VAPOR TREATMENT OF WORK</b>
		83	.Work is organic material
		84	<b>APPLYING EXPLOSIVE FORCE TO MAKE ARTICLE</b>
		85	<b>UTILIZING SPECIAL INERT GASEOUS ATMOSPHERE OR FLUSHING MOLD WITH INERT LIQUID</b>
		86	<b>REMOVAL OF LIQUID COMPONENT OR CARRIER THROUGH POROUS MOLD SURFACE</b>
		87	.By direct application of vacuum or pneumatic pressure

500	<b>DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO PERMANENTLY SHAPE, DISTORT, OR SUSTAIN WORK</b>	523	.Including application of internal fluid pressure to hollow finite length parison to expand same into conformity with female mold part
501	.Producing toroidal work (e.g., tire, etc.)	524	..Production of a sealed product or a filled mercantile container
502	..At least a portion of the external surface being unconfined during application of fluid pressure	525	...Including maintenance or production of internal sterility
503	.Shaping against interior of a forming surface by rotation of material or material shaping member	526	..Including use of vacuum or internal venting of parison to remove fluid after application of differential fluid pressure
504	.Perforation by differential fluid pressure; or smoothing, scoring, or cutting of green concrete with fluid pressure	527	..Forming multiple containers in a single mold block from a single length of parison
505	.Corrugating	528	..Including internal cooling of the article after fluid pressure shaping
506	..Of a tubular preform	529	..Including plural distinct steps of differential fluid pressure induced expansion
507	...With axial compression	530	...In diverse female mold cavities
508	...Continuous or indefinite length	531	..Including shaping by mechanical means other than fluid pressure during or subsequent to fluid pressure differential shaping
509	.Labeling or embossing indicia	532	...Shaping is longitudinal or axial stretching prior to or during differential fluid pressure deformation
510	.Producing multilayer work or article	533	...Shaping is neck formation other than by closure of mold for body of article
511	..Including application of vacuum to hold, support, or sustain a preform against which material is molded	534	...Shaping is subsequent to expansion
512	..Producing hollow work or a tubular article	535	..Including heating of previously formed parison to blow molding temperature
513	...Including injection	536	..Including removal of flash or sprue
514	...Including extrusion	537	..Including injection forming of parison or portion thereof
515	....Including forming a hollow article	538	...Arcuate or rotary movement of parison or workpiece from one work station to another
516	...By insertion or application of a preform	539	...Including extrusion
517	.Bulk deposition of particles by differential fluid pressure	540	..Including extrusion
518	..Continuous or indefinite length	541	...Of irregular or varying cross section
519	.Differential temperature conditioning		
520	..Including application of internal fluid pressure to hollow finite length preform to force same into conformity with female mold part		
521	...Heating		
522	..Starting material is nonhollow planar finite length preform or product is planar and of finite length		

542	...With movement of parison or workpiece from one work station to another	567	.....With reheating of work (e.g., tempering, annealing, etc.)
543	....Movement is arcuate or rotary	568	.....Including use of vacuum
544	.Starting material is nonhollow planar finite length preform or product is finite length	569	.....Including annular fluid contact
545	..Including uniting plural shaped sheets to form hollow work	570	.Including hydrostatic or liquid pressure
546	..Material shaped is a fabric, per se	571	.Including use of vacuum
547	..With distinct staged deformation by differential fluid pressure	572	.With internal application of fluid pressure
548	...Including heating after forcing into contact with a solid heating means by differential fluid pressure	573	..To finite length tubular product
549	...Including use of male part to stretch heated preform which is formed by a female mold which determines shape of work	574	..To form generally spherical product
550	..Including use of male part to stretch heated preform which is formed by a female mold which determines shape of work	101	<b>VACUUM TREATMENT OF WORK</b>
551	...Simultaneous formation of plural articles	102	.To degas or prevent gas entrapment
552	..Including curing or vulcanization	103	<b>WITH TWINING, PLYING, BRAIDING, OR TEXTILE FABRIC FORMATION</b>
553	..Including use of vacuum	104	<b>FORMING ELECTRICAL ARTICLES BY SHAPING ELECTROCONDUCTIVE MATERIAL</b>
554	...Including use of male mold part which determines the final shape of at least a portion of the work	105	.Conductive carbon containing
555	.Production of continuous or running length	106	<b>FORMING SOUND GROOVES IN RECORDS</b>
556	..By casting on to a cooled roll	107	.Die pressing disk type records
557	..Including liquid contact	108	<b>ORIENTING OR ALIGNING SOLID PARTICLES IN FLUENT MATRIX MATERIAL</b>
558	...Including internal liquid contact	109	<b>FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES</b>
559	....With downward movement of workpiece	110	.Mica particles
560	...With calibration, mandrel forming or with internal guide	112	.Stratified or layered articles
561	...Contact with liquid coagulant or reactive liquid	113	..Plural layers formed by uniting randomly associated particles
562	...With immersion in liquid bath	114	.Utilizing centrifugal force
563	..Producing a tubular product	115	.With liberating or forming of particles
564	...Including deformation by application of fluid pressure	116	..From felt or batt
565	....With internal gas bearing or mandrel	117	.Agitating to form larger particles (i.e., accretion or agglomeration)
566	....With application of external pressure or vacuum	118	.With subsequent cutting, grooving, breaking, or comminuting
		119	.With reshaping or surface embossing of formed article
		120	.Plural, intermittent pressure applying
		121	.Projecting particles in a moving gas stream
		122	.Utilizing diverse solid particles
		123	.Autogenously or by activation of dry coated particles

124	..By activating naturally occurring binder (e.g., cork, etc.)	153	.Punching article from sheet material
125	..Sintering or heat fusing particles	154	.Making hole or aperture in article
126	...Of organic material	155	..By punching or drilling
127	....Fluorocarbon resin	156	...Plurality of holes
128	.Liquid binder applied subsequent to particle assembly	157	.Dividing work to form plural articles
129	<b>WITH PRINTING OR COATING OF WORKPIECE (OUT OF MOLD)</b>	158	..Shaving or slicing sheets from work block
130	.Anti-stick or adhesion preventing coating	159	..Tubular work
131	.Coating with particulate material	160	..Sheet or web work
132	.Applying indicia or design (e.g., printing, etc.)	161	.Flash or sprue removal type
133	.Applied to clay, sand, or earthen workpiece	162	.Surface finishing (e.g., abrading, grinding, etc.)
134	.Coating or impregnating workpiece before molding or shaping step	163	.Simultaneous severing and shaping, or severing while work remains on shaping surface
135	..Molding material against and uniting to the coated or impregnated workpiece	164	<b>UNCONFINED DRAWING OR EXTENDING OF A PLASTIC MASS TO MAKE ARTICLE</b>
136	..Impregnation of batt, sheet, or filament	165	<b>FORMING CONTINUOUS OR INDEFINITE LENGTH WORK</b>
137	...Heat settable impregnant	166	.With mold element formation or removal
138	<b>WITH SEVERING, REMOVING MATERIAL FROM PREFORM MECHANICALLY, OR MECHANICALLY SUBDIVIDING WORKPIECE</b>	167	.Of varying cross-sectional area or with intermittent cross-sectional irregularity
139	.Removing surface portion of composite workpiece to expose substrate	168	.With crimping or crinkling of strands of filaments
140	.To form particulate product (e.g., flakes, etc.)	169	.With prevention of equipment fouling accumulations or deposits
141	..Subsequent to extruding step	170	..By chemical additive to molding material or treating bath
142	...By cutting at point of extrusion	171.1	.Layered, stratified traversely of length, or multiphase macrostructure containing material (e.g., conjugate, composite, islands-in-sea, core-sheath, etc.)
143	...From strands	171.11	..Including extrusion on or about plural discrete end-to-end or discrete side-by-side preforms (e.g., definite length preform, etc.)
144	..From continuously cast material	171.12	..Hollow preform
145	.Forming continuous work followed by cutting	171.13	..Utilizing indefinite length preform
146	..Slitting longitudinally	171.14	...Of metal
147	...Of web to form plurality of threads	171.15	....Natural rubber or thermosetting resin containing layer
148	..Extruding followed by cutting to length		
149	...Extruding around moving preform		
150	...Extruding hollow product		
151	...With shaping between extruding and cutting steps		
152	.Cutting and uniting cut parts		

- 171.16 ....Utilizing plural metal preforms (e.g., twisted, spiral, etc.)
- 171.17 ....Shaping of plural layers on preform
- 171.18 .....Sequential shaping of layers
- 171.19 ....Including upstream mixing
- 171.2 ....Producing coiled or helical containing structure or layer
- 171.21 ....Producing ribbon, tape, or sheet (e.g., extrusion, etc.)
- 171.22 ....Including preheating of metal preform
- 171.23 ...Shaping of polyamide (e.g., nylon, etc.) or addition polymer of at least one monoethylenically unsaturated monomer (e.g., polyethylene, polypropylene, polystyrene, etc.) containing layer on preform
- 171.24 ...Shaping of natural rubber or thermosetting resin containing layer on preform (e.g. elastomers, etc.)
- 171.25 ...Shaping of a natural resinous layer on preform (e.g., cellulosic, etc.)
- 171.26 ..Producing hollow composite
- 171.27 ...Having three or more layers of at least two different materials
- 171.28 ...Polyamide (e.g., nylon,, etc.) or addition polymer of at least one monoethylenically unsaturated monomer (e.g., polyethylene, polypropylene, polystyrene, etc.) containing layer
- 171.29 ...Including rotation of shaping surface or material being shaped
- 172.1 ...Having particular noncircular cross-section (e.g., T-configured, etc.)
- 172.11 ..Producing composite strand, filament, or thread
- 172.12 ...Having particular noncircular cross-section (e.g., T-configured, etc.)
- 172.13 ...Islands-in-sea (i.e., discontinuous phase in continuous phase)
- 172.14 ...Side-by-side
- 172.15 ...Sheath-core
- 172.16 ...Into liquid bath (e.g., wet-spinning, etc.)
- 172.17 ...Melt-spinning
- 172.18 ....Polyamide (e.g., nylon, etc.) or addition polymer of at least one monoethylenically unsaturated monomer (e.g., polyethylene, polypropylene, polystyrene, etc.) containing layer
- 172.19 ..Producing indefinite length article by depositing material on endless forming surface (e.g., endless belts, rollers, etc.)
- 173.1 ...Including roller-type shaping surface (e.g., calendering, etc.)
- 173.11 ..Having three or more layers of at least two different compositions
- 173.12 ...Melt extrusion (e.g., co-extrusion, etc.)
- 173.13 ....Vinylidene chloride or fluoride containing layer
- 173.14 ....Polyamide (e.g., nylon, etc.) or addition polymer of at least one monoethylenically unsaturated monomer (e.g., polyethylene, polypropylene, polystyrene, etc.) containing layer
- 173.15 ....Including subsequent reshaping (e.g., stretching, etc.)
- 173.16 ..Melt co-extrusion (e.g., two layers, etc.)
- 173.17 ...Having particular noncircular cross-section (e.g., T-configured, etc.)
- 173.18 ...Having colorant added to material to be shaped or producing two diverse colored layers
- 173.19 ...Polyamide (e.g., nylon, etc.) or addition polymer of at least one monoethylenically unsaturated monomer (e.g., polyethylene, polypropylene, polystyrene, etc.) containing layer
- 174.1 ....Styrene polymer containing
- 174.11 ...Natural rubber or elastomer containing layer
- 175 .By calendering
- 176.1 .Shaping by extrusion

177.1	..To produce particular cross section (e.g., noncircular, etc.)	198	.....Mechanical treatment of articles (e.g, stretching, folding, deforming, etc.)
177.11	...Nonresinous material only (e.g., ceramic, soap, cellulose, glue, etc.)	199	.....Cupro ammonium cellulose
		200	.....Cellulose acetate
177.12	...Honeycomb	201	....Natural rubber containing extrudant
177.13	...Filament (e.g., T-configured, dog-bone, trilobal, etc.)	202	....Protein containing extrudant
		203	...Liquid is solvent extractive
177.14	....Hollow or tubular work produced	178 F	...Filaments
		204	..Solidifying by evaporation of liquid solvent or liquid carrier
177.15	.....Capillary passages (e.g., pen nibs, writing tips, etc.)		
177.16	...Die configuration (other than fixed orifice shape)	205	...Synthetic resin containing spinning solutions
177.17	...Processing or treatment after extrusion (e.g., support, guide, etc.)	206	....Polyacrylonitrile
		207	...Cellulose derivative
177.18	....Chemical	208	....With stretching of formed article
177.19	....Temperature specified (other than ambient)	209.1	..Hollow article
177.2	...With reinforcement filler, or additive	209.2	...Including rotational or translational movement of a material shaping member
178 R	..Into a liquid bath	209.3	...Reshaping product (extrudate) subsequent to extrusion
179	...With purifying or replenishing of bath	209.4	....Sizing to desired dimension
180	...Liquid of bath is in motion	209.5	.....Stretching extruded material
181	....With stretching in bath of extruded article	209.6	...Curing or polymerizing operation during extrusion (e.g., cross-linking, vulcanizing, etc.)
182	...Polyacrylonitrile containing extrudant		
183	...Reactive bath	209.7	...At least two distinct operational temperatures employed during the extrusion operation
184	....Synthetic resin containing extrudant		
185	.....Polyvinyl alcohol containing	209.8	...Providing special flow channel feature (e.g., varying dimension of flow channel or varying direction of flow of material in the extruder, etc.)
186	....Carbohydrate containing extrudant		
187	.....Cellulose derivatives		
188	.....Viscose		
189	.....Bath contains organic compound	210.1	..And reshaping
190	.....Carbohydrate or protein	210.2	...Including a step other than application or removal of tension
191	.....Extrudant contains added organic compound		
192	.....Sulfur containing organic compound	210.3	...With application of agent other than water or air to workpiece
193	.....Polyethers (e.g., oxyalkylated compounds, etc.)		
194	.....Nitrogen containing organic compound	210.4	...During or after final shape change
195	.....Subsequent chemical treatment of formed articles	210.5	...With temperature gradient across cross-section of workplace or heat treatment after all shaping
196	.....Plural step coagulating or regenerating		
197	.....With stretching		

210.6	...With processing before extrusion or inclusion of additive	221	..With destruction of pattern or mold to dissociate
210.7	...Plural stretching steps or stages	222	..Anatomical surface (i.e., using body area as an impression pattern)
210.8	...Of filament	223	...Pedal
211	..Utilizing added agent (e.g., flux, plasticizer, dispersing agent, etc.)	224	..With flexible inversion of a forming surface
211.1	..Centripetal extrusion	225	..Forming mold from fluent material
211.11	..Nonresinous material only (e.g., ceramic, soap, cellulose, etc.)	226	...With initial molding or treating of a surface to be reproduced
211.12	..Processing or treatment after extrusion	227	...Developing a surface negative and then a surface positive mold
211.13	...Contact of extrudate with fluid other than ambient air	228	<b>FORMING STRESSED CONCRETE ARTICLES</b>
211.14	....Filament (e.g., fiber, etc.)	229	<b>PRESTRESSING SOLID BODY AND UNITING IN STRESSED CONDITION</b>
211.15	.....Plural treatment stages of zones	230	<b>UTILIZING HEAT RELEASABLE STRESS TO RESHAPE SOLID WORKPIECE (E.G., ELASTIC MEMORY, ETC.)</b>
211.16	.....Extractive fluid or effects reaction	231	<b>APPLYING TENSILE STRESS TO WORKPIECE DURING HEAT CURING</b>
211.17	.....Heating	232	<b>DISPARATE TREATMENT OF ARTICLE SUBSEQUENT TO WORKING, MOLDING, OR SHAPING</b>
211.18	....Plural treatment stages or zones	233	..Washing of article
211.19	....Extractive fluid or effects reaction	234	..Effecting temperature change
211.2	....Heating	235	..Annealing
211.21	..Screw extruder or screw feeder device	235.6	...After stretching running or indefinite length work
211.22	..Filament (e.g., fiber, etc.)	235.8	....Biaxial stretching of film
211.23	..Plural screws, plural extruders, or plural stage extruder	236	..Completing vulcanization or polymerization
211.24	..Curing or polymerization in the extruder (includes incomplete polymerization or curing, or coagulating rubber)	237	..Cooling
212	..By casting liquids on a solid supporting or shaping surface	238	<b>COMBINED</b>
213	..Utilizing surface parting, anti-stick or release agent	239	<b>MECHANICAL SHAPING OR MOLDING TO FORM OR REFORM SHAPED ARTICLE</b>
214	..To form nonplanar article or surface	240	..Separately introducing reacting materials into mold
215	..By dipping the forming surface into the forming material	241	..To produce composite, plural part or multilayered article
216	..Rubber or synthetic resin containing liquid	242	..Joining parts for relative movement
217	..Carbohydrate containing liquid	243	..Bristled or tufted article making
218	...Solidifying by applied reagent	244	..Uniting shoe part to upper
219	<b>WITH STEP OF MAKING MOLD OR MOLD SHAPING, PER SE</b>	245	..Multicolored surface
220	..Utilizing surface to be reproduced as an impression pattern	246	...One component self-sustaining prior to compositing
		247	....Positioning component in mold

## CLASS 264 PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES

248	..Fusion bonding of preformed bodies and shaping at joint only	272.11	....Electrical component encapsulating
249	..Mechanically securing parts together by reshaping joint portion only	272.12	.....Nonresinous encapsulant
250	..By separately molding different article portions	272.13	.....With curing procedure, or procedure or treatment to compensate for differential expansion
251	...Spaced molded portions interconnected by solid preform	272.14	.....Plural electrical components
252	....Molding portions along sheet edge	272.15	.....With component positioning procedure or incorporation of article positioning means
253	....Building unit having spaced walls	272.16	.....Transducer, or electric lamp or space discharge device
254	...Separate stage covering of different preform areas	272.17	.....Semiconductor or barrier layer device (e.g., integrated circuit, transistor, etc.)
255	...Sequential formation of portion on same mold or a preform surface	272.18	.....Condenser or resistor
256	....Utilizing clay, sand, or calcareous slurry	272.19	.....Dynamoelectric machine, electromagnet, transformer inductors, or coils
257	..One component is a fibrous or textile sheet, web, or batt	272.2	.....Motor or part encapsulated
258	...Joining a plurality of superposed fibrous or textile layers	272.21	.....Battery or part encapsulated
259	..Shaping material and uniting to a preform	273	....Shaped material extends through holes in preform
260	...Co-molding plural fluent materials and uniting to preform	274	....Preform particularly provided with means to provide interlock with shaped material
261	...Uniting spaced preforms, by introducing fluent material therebetween	275	....Positioning or maintaining position of preform relative to mold surface
262	....Concentric preforms	276	.....Preventing flash
263	...To unite independent contacting preforms	277	.....Maintaining preforms in spaced relationship
264	...Preventing adherence of shaped material to preform	278	.....By removable means
265	...Conditioning or treatment of preform	279	....Applying fluent material to preform
266	...Simultaneously shaping material and reshaping preform	279.1	....Preform is completely surrounded by shaped material
267	...Against inner surface of hollow preform	280	..Reshaping running or indefinite-length work
268	....Cap or cup-like preform (e.g., container closure, etc.)	281	..Longitudinally advanced coiling (nonplanar)
269	....Cavity lining type	282	..Creping or crinkling
270	.....Utilizing centrifugal force (e.g., pipe lining, etc.)	283	...By doctoring from drum
271.1	...Preform embedded in or surrounded by shaped material	284	..Deforming the surface only
		285	..Bending
		286	...Corrugating
		287	....And subsequent reshaping of corrugated material
		288.4	..Stretching by applying tension
		288.8	...Nonuniform product (e.g., porous, etc.) or with tensioning before application of heat

289.3	...With treatment other than heating before stretching	304	...Facilitating removal of article from form
289.6	...With shrinking or with liquid contact during or after stretching	305	...Successive dipping steps into same material
290.2	...Biaxial or transverse to travel direction	306	...Conditioning or treating material or form to effect deposition
290.5	...Of filament	307	...Treating accreted material on form with added agent or reactant
290.7	....Including contact with mechanism in stretch path (e.g., snubbing, etc.)	308	..Incremental layer molding type
291	..Stretching or stretch forming	309	..Spraying or flinging material against a shaping surface
292	..By drawing over a form	310	..By rotation of material or material shaping member
293	..Deforming the surface only	311	...Utilizing centrifugal force
294	..Plural sequential shaping or molding steps on same workpiece	312	...Inner relatively rotating member to form hollow article
295	..Molding followed by bending or twisting	313	..Utilizing a flexible, deformable, or destructable molding surface or material
296	..One step reshapes portion only of article	314	...Utilizing fluid-expansible mold
297.1	..Forming plural articles	315	....Toroidal mold bag
297.2	..Including introducing material under pressure into a closed mold cavity (e.g., injection molding, etc.)	316	...Utilizing sheet-like material
297.3	...With plural molds on belt or turntable	317	...Removing mold by destruction
297.4	..Forming multiple stacked or nested articles or including multilayer pressing	318	..Molding trapped undercut article portion
297.5	..Reshaping or treatment of a preform (e.g., vulcanizing, etc.)	319	..Applying heat or pressure
297.6	..With plural molds on a moving surface	320	...Reshaping solid work or introducing solid work into mold cavity
297.7	...With linear movement of the molds	321	....Sponge-like or foamed work
297.8	..Simultaneous formation of plural articles	322	....Initially softening workpiece
297.9	...Of primarily inorganic material (e.g., concrete or ceramic, etc.)	323	....Sliding motion between material and mold surface (extruding finite articles)
298	..By casting on a liquid surface	324	....Woven or felted sheet-form work
299	..Shaping against forming surface (e.g., casting, die shaping, etc.)	325	....Utilizing closed mold cavity
300	..Utilizing release agent in molding material	326	.....Toroidal work (e.g., tire, etc.)
301	..Accretion from bulk	327	...Differential heating or cooling in mold
302	...Slush casting type	328.1	...Introducing material under pressure into a closed mold cavity (e.g., injection molding, etc.)
303	...Accretion of varying wall thickness or control of accretion by compound movement of form	328.2	....Material is nonthermoplastic
		328.3	.....Torodial work (e.g., tire, etc.)
		328.4	.....Utilizing a transfer chamber
		328.5	.....With preformed charge
		328.6	.....Including mixing of reactants

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|--------|--|--------|--|
| 328.7  | ....Including changing mold size or shape during injection or between multiple stages of injection   | 332    | ...Fusing or melting inorganic material                              |
| 328.8  | ....With multiple injectors, mold cavities, or multiple steps of injection of material   | 333    | ...Inorganic hydraulic settable material shaping                     |
| 328.9  | ....Including operation or design to minimize formation of gate, sprue, or flash   | 334    | ..Article or material ejecting, core or mold stripping or separating |
| 328.11 | ....Including movement of mold relative to injector  | 335    | ...By direct fluid pressure or pressure differential                 |
| 328.12 | ....Including specified direction or condition of flow in mold   | 336    | ...Ejecting or stripping before full set or cure of work             |
| 328.13 | ....Including injection at two or more pressures   | 337    | ..Utilizing particular mold material                                 |
| 328.14 | ....With heating or cooling  | 338    | ...Coating or lining   |
| 328.15 | .....Of injection nozzle   | 339    | .Bending or twisting of work   |
| 328.16 | .....Of mold   | 340    | <b>TREATING SHAPED OR SOLID ARTICLE</b>                              |
| 328.17 | ....Pretreatment or preparation of charge material   | 341    | .Solvent polishing type  |
| 328.18 | .....Mixing of filler, dye, or pigment   | 342 R  | .To shrink   |
| 328.19 | .....Including feeding to accumulator  | 342 RE | ..Relaxation of running or indefinite length work                    |
| 330    | ...Organic material shaping  | 343    | .To swell or plasticize  |
| 331.11 | ....Synthetic resin containing   | 344    | .To remove entrained material from article                           |
| 331.12 | .....Polymer having heterocyclic group or polymer derived from monomer having heterocyclic group except heterocyclic derived solely from carboxylic acid (i.e., cyclic imide, lactam, lactone, or anhydride) | 345    | .By a temperature change   |
| 331.13 | .....Polymer derived from monomer having at least two ethylenic groups (e.g., ABS rubber, chloroprene, etc.) or with natural rubber  | 346    | ..To anneal or temper  |
| 331.14 | .....Fluorine  | 347    | ..To complete vulcanization or polymerization                        |
| 331.15 | .....Ethylenically unsaturated polymer or polymer derived from ethylenically unsaturated monomer   | 348    | ..To cool  |
| 331.16 | .....Nitrogen containing polymer   | 349    | <b>MISCELLANEOUS</b>   |
| 331.17 | .....Hydrocarbon polymer   |        |  |
| 331.18 | .....Carboxylic acid or derivative (e.g., acrylic, etc.)   |        |  |
| 331.19 | .....Nitrogen containing (e.g., polyamide, polyurethane, etc.)   |        |  |
| 331.21 | .....Carboxylic acid or derivative   |        |  |
| 331.22 | .....Polymer derived from aldehyde   |        |  |

**CROSS-REFERENCE ART COLLECTIONS**

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|-----|--|
| 900 | <b>DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO SHAPE, RESHAPE (I.E., DISTORT), OR SUSTAIN AN ARTICLE OR PREFORM AND HEAT-SETTING (I.E., CRYSTALLIZING OF STRETCHED OR MOLECULARLY ORIENTED PORTION) THEREOF</b> |
| 901 | .Heat-setting of stretched or molecularly oriented article formed from planar preform (e.g., sheet, film, etc.)  |
| 902 | .Production of continuous length   |
| 903 | .Heat-setting and simultaneous differential heating of stretched or molecularly oriented section of article or preform   |
| 904 | .Maintaining article in fixed shape during heat-setting  |

- 905 .Having plural, distinct differential fluid pressure shaping steps
- 906 ..And heat-shrinking outside of mold including subsequent re-expanding of shrunken article using differential fluid pressure
- 907 **DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO SHAPE, RESHAPE (I.E., DISTORT), OR SUSTAIN AN ARTICLE OR PREFORM AND CRYSTALLIZING OF NONSTRETCHED OR MOLECULARLY UNORIENTED PORTION THEREOF**
- 908 .Crystallizing of neck portion of hollow article or hollow preform
- 909 **DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO STRETCH AN ARTICLE OR PREFORM AND HEAT SHRINKING OF STRETCHED ARTICLE OR PREFORM**
- 910 **SINTERING TO PRODUCE TRANSLUCENT INORGANIC ARTICLE**

**CROSS-REFERENCE ART COLLECTIONS**

- 911 **RECYCLING CONSUMER USED ARTICLES OR PRODUCTS**
- 912 .From toroidal shapes (e.g., resilient tires, etc.)
- 913 .From fiber or filament, or fiber or filament containing article or product (e.g., textile, cloth fabric, carpet, fiberboard, etc.)
- 914 ..From cellulose containing articles (e.g., paper, etc.)
- 915 .From inorganic material containing articles or products (e.g., hydro-set, cement, plaster, wire, cable, etc.)
- 916 .From porous material containing articles (e.g., sponge, foam, etc.)
- 917 .By blow molding material recycled from consumer used article or product
- 918 .From hollow- or container-type articles (e.g., tubes, bottles, cups, etc.)

- 919 ..From pipe or tube (e.g., hose, etc.)
- 920 .By extruding material recycled from consumer used article or product
- 921 .By injection molding material recycled from consumer used article or product

**FOREIGN ART COLLECTIONS**

Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collection listed below. These collections contain ONLY foreign patents or nonpatent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

- FOR **CLASS-RELATED FOREIGN DOCUMENTS**
- FOR 100 **REPAIRING OR RESTORING ARTICLES FOR REUSE (264/36)**
- FOR 101 **RECYCLING OF RECLAIMED OR PURIFIED PROCESS MATERIAL (264/37)**
- FOR 102 .Of extrudant-receiving bath material (264/38)

**DIGESTS**

- DIG 1 **METHODS OF BLOW-MOLDING CELLULAR CONTAINERS**
- DIG 2 **MOLDING CELLULAR ALDEHYDE RESINS**
- DIG 3 **MOLDING CELLULAR PVC-ISOCYANATE RESINS**
- DIG 4 **MOLDING AND FORMING BENDABLE AND FLEXIBLE PRODUCT FROM RIGID PREFORM**
- DIG 5 **USE OF ONE OR MORE BLOWING AGENTS TOGETHER**
- DIG 6 **MOLDING MICROBALLOONS AND BINDER**
- DIG 7 **BINDING AND MOLDING CELLULAR PARTICLES**
- DIG 8 **FIBRILLATING CELLULAR MATERIALS**
- DIG 9 **PRE-EXPANSION OF FOAMED POLYSTYRENE**

DIG 10	FOAMED POLYSTYRENE MOLD FILLING	DIG 47	PROCESSES OF SPLITTING FILM, WEBS OR SHEETS
DIG 11	MOLDING STYROPOR USING STEAM PROBES-BATCH	DIG 48	PROCESSES OF MAKING FILTERS
DIG 12	MOLDING STYROPOR USING STEAM PROBES CONTINUOUS	DIG 49	PROCESSES OF USING FLY ASH
DIG 13	CELL SIZE AND DISTRIBUTION CONTROL WHILE MOLDING A FOAM	DIG 50	USE OF FLUID PRESSURE IN MOLDING
DIG 14	FORMING INTEGRAL SKIN ON A FOAMED PRODUCT	DIG 51	USE OF FLUIDIZED BED IN MOLDING
DIG 15	AGING OF FOAMED RESIN PRODUCTS	DIG 52	PROCESSES OF MAKING CORRUGATED TUBES FOR GAS MASK
DIG 16	MOLDING FOAMED POLYPROPYLENE ARTICLES	DIG 53	PROCESSES OF USING GLASS FILLER IN MOLDING PROCESS
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DIG 18	CROSS-LINKING A THERMOPLASTIC LINEAR FOAM DURING MOLDING	DIG 55	PROCESSES FOR MAKING JEWELRY
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DIG 20	TAR BONDED	DIG 57	PROCESSES OF FORMING LAYERED PRODUCTS
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DIG 27	PROCESS OF SPINNING VISCOSE WHERE VISCOSE HAS HIGH DEGREE OF POLYMERIZATION	DIG 60	PROCESSES OF MOLDING PLASTISOLS
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DIG 33	BLOW-MOLDING ARTICLES OF NONUNIFORM THICKNESS	DIG 66	PROCESSES OF RESHAPING AND REFORMING
DIG 34	PROCESSES AND MOLDS FOR MAKING BUTTONS	DIG 67	FORMING RING-LIKE STRUCTURE
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DIG 40	PROCESSES OF COILING PLASTICS	DIG 74	PROCESSES OF REPAIRING TIRES
DIG 41	PROCESSES OF MOLDING COLLAPSIBLE TUBES	DIG 75	PROCESSES OF UNITING TWO OR MORE FIBERS
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DIG 43	PROCESSES OF CURING CLAY AND CONCRETE MATERIALS	DIG 77	PROCESSES OF MOLDING URETHANES
DIG 44	USING DESTRUCTIBLE MOLDS OR CORES IN MOLDING PROCESSES	DIG 78	PROCESSES OF MOLDING USING VACUUM
DIG 45	MOLDING USING AN ELECTRICAL FORCE	DIG 79	PROCESSES OF MOLDING ARTICLES OF VINYLIDENE CHLORIDE
DIG 46	MOLDING USING AN ELECTRICAL HEAT	DIG 80	PROCESSES OF WATERPROOFING
		DIG 81	PLASTIC NET
		DIG 82	EMBOSSING BY FOAMING
		DIG 83	INJECTION MOLDING OF POLYOLEFIN-TYPE FOAM
		DIG 84	CONVERSION OF FOAMED RESINOUS BUNS INTO FOAMED BILLETS HAVING GEOMETRICAL CROSS-SECTIONS